

Amendments to the claims

1. (Currently amended) A method of laminating a circuit board comprising the steps of:

providing a first layer having a dielectric material having a conductive signal plane thereon, said signal plane having at least one surface with a first portion having a first roughness;

forming said signal plane into signal lines and lands;

thereafter selectively roughening at least a second portion of said at least one surface including said lands, but less than all of said one surface, to form a second surface having a second roughness greater than said first roughness;

providing a second layer comprised of a voltage plane as a single sheet of foil disposed on a dielectric material and selectively roughening the second layer to provide a first portion and a second portion, wherein said second portion of the voltage plane has a roughness greater than the first portion of said voltage plane; laminating said first layer to said second layer with a sticker sheet therebetween to form a composite structure; said signal plane and said voltage plane being oriented toward each other with said first portion of said voltage plane mirroring said first portion of said conductive signal plane;

said composite structure being formed with plated through holes surrounded by said lands.

2. (Canceled)

3. (Previously presented) The invention as defined in claim 1 wherein said second roughness of said signal plane has an R_z value greater than about 3 microns.

4. (Previously presented) The invention as defined in claim 1 wherein the first roughness of said at least one surface of said signal plane has an R_z value of less than about 1 micron.

5. (Previously presented) The invention as defined in claim 1 wherein said first roughness of said signal plane has an R_z value less than about 1 micron, and said second roughness of said signal plane has an R_z value greater than about 3 microns.

6. (Previously presented) The invention as defined in claim 1 wherein said signal plane has a plurality of portions of said at least one signal plane surface with said second roughness.

7. (Previously presented) The invention as defined in claim 6 wherein said plurality of portions of said at least one signal plane surface includes at least three surfaces.

8. (Canceled)

9. (Canceled)

10. (Previously presented) The invention as defined in claim 1 wherein said second portions of said signal plane having a second roughness are copper and are roughened by treating the copper surface with an oxide or an oxide replacement process, or having plated thereon zinc, brass, nickel or chrome.

11. (Previously presented) The invention as defined in claim 1 wherein said surface of said signal plane having said second roughness is created by applying a photoresist material to said signal plane, then exposing and developing said photoresist to reveal the surface to have said second roughness, then treating said surface to have said second roughness to provide the desired surface roughness, then removing the photoresist.

12. (Previously presented) The invention as defined in claim 1 wherein said second portion on said signal plane having said second roughness is created by,
applying a masking material to unmasked areas of said signal plane that are not to have said second roughness,
then roughening those areas to have said second roughness.

13. (Canceled)

14. (Canceled)

15. (Previously presented) The invention as defined in claim 1 wherein said second portion on said signal plane having said second roughness is created by,

applying a masking material to unmasked areas of said signal plane that are not to have said second roughness,
then roughening those areas to have said second roughness.